CINDY HYDE-SMITH
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United States Senate
WASHINGTON, DC 20510–2405

December 17, 2019

Ms. Mary S. Walker
Regional Administrator
Environmental Protection Agency
Region 4
61 Forsyth Street S.W.
Atlanta, Georgia 30303

Major General R. Mark Toy
Commander
U.S. Army Corps of Engineers
Mississippi Valley Division
P.O. Box 80
Vicksburg, Mississippi 39181

Dear Regional Administrator Walker and Major General Toy:

Thank you for recognizing the significant economic, environmental, and personal disruptions caused by flooding in the Yazoo Backwater Area this year, and for your commitment to working cooperatively on a long-term solution. Your leadership and dedication to resolving this issue has provided hope for the citizens of my state.

I understand that the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) have agreed to meet deliverables by December 20 on a path toward providing improved flood protection for the region, which is deeply encouraging. I am writing to request that you work to ensure these deliverables, and any future milestones, are met in an efficient, effective, and timely manner.

Over the course of this year, I have worked to better understand the administrative, constitutional, and environmental issues associated with the Yazoo Backwater Area Pump Project. I have reviewed the EPA's 2008 Clean Water Act Final Determination (2008 FD), as well as the Corps' 2007 Final Supplemental Environmental Impact Statement (FSEIS) and accompanying appendixes. I have also observed what has taken place in the Yazoo Backwater Area since 2008, and I am not resigned to the notion that achieving a balanced solution of flood protection and environmental protection is unattainable.

Accurately predicting the effects of projects that encompass large areas and dynamic ecosystems is a difficult task. Seemingly insignificant assumptions used in formulating the 2007 Yazoo Backwater Area wetland analysis had a profound effect on the information available to EPA at the time of the 2008 FD. Much has changed in the area, and much has been learned from the flood events that have occurred since then. New project-specific information generated over the past 10 years regarding wetlands, water quality, and fisheries differs greatly from the information provided in the 2007 FSEIS. In light of these developments, compelling circumstances justify the

implementation of congressionally-authorized flood control improvements to address the overwhelming flood risks to the residents of the Yazoo Backwater Area.

To appreciate the extent of potential differences between estimated project impacts in 2008 and what they might be today, it is necessary to revisit key aspects of the 2007 FSEIS. The recommended plan for the Yazoo Backwater Area consisted of a 14,000-cfs pump station with a pump-on elevation of 87 feet, National Geodetic Vertical Datum (NGVD), which is the one-year flood plain and would allow approximately 216,000 acres to flood prior to pump station operation. The plan also included nonstructural features consisting of easements and conservation measures on 55,600 acres of agricultural land (2007 FSEIS Main Report). Results of the 2007 FSEIS indicated that the structural component of the recommended plan would affect 66,900 acres of Federally-defined wetlands – 26,300 acres of which would no longer meet the Federal definition of wetlands. The remaining 40,600 acres would still meet the Federal definition but experience a shorter annual duration of flooding.

The primary environmental concern associated with the proposed Yazoo Backwater Area Pump Project has been that removing periodic high water by pumping would reduce the duration of flood events, which in turn would reduce the number of days that wetlands in the area are inundated. As noted previously, the findings described above, which served as the primary basis for the 2008 FD, were influenced greatly by two assumptions made by the Corps in its analysis of wetlands. Further, new project-specific information, which was not accounted for in the 2008 FD, provides a rational explanation for any future actions that may conflict with discretionary administrative decisions made in the past.

2007 FSEIS Wetland Hydrology Assumptions

The analysis of wetlands in the Yazoo Backwater Area was worst case, and overstated the estimated impacts of the project on wetland hydrology. The Corps Wetlands Delineation Manual states that areas inundated or saturated less than 5 percent (14 days) of the growing season *are not* wetlands. Areas inundated or saturated for 12.5 percent (34 days) of the growing season *are* wetlands. Areas inundated or saturated between 5 and 12.5 percent (14 to 34 days) of the growing season *may or may not* be wetlands. The predicted impacts to wetlands were based on the assumption that backwater flooding was the sole source of water to sustain wetlands. It assumed that 51 inches of annual precipitation played no role in sustaining wetlands in the area (FSEIS Appendix 2 – Section 404(b)(1) Evaluation).

As you know, wetlands can be sustained by inundation (surface flow), saturation (groundwater), or a combination of the two. New monitoring data collected by the Corps over the past 10 years confirms that saturation from annual rainfall, not inundation from flooding, sustains up to 90 percent of the Yazoo Backwater Area wetlands. This

information, which was not accounted for in the 2008 FD, is significant because it means that removal of periodic floodwater by pumping would not change the wetland characteristics of the area, or adversely affect wetland hydrology.

2007 FSEIS Wetland Delineation Assumptions

The analysis of wetlands also overestimated the extent of wetlands in the area. The conservative assumption was made that all lands in the Yazoo Backwater Area below the 5 percent wetland duration elevation (88.6 feet, NGVD) were wetlands. However, the Federal definition states that all lands below the 12.5 percent duration elevation (84 feet, NGVD) *are* wetlands, and that lands between the 12.5 and 5 percent duration elevations (84 to 88.6 feet) *may or may not* be wetlands. According to the Wetlands Appendix, there are approximately 80,000 acres below the 12.5 percent duration elevation, and there are 189,000 acres below the 5 percent duration elevation. Thus, the decision to use the 5 percent duration elevation instead of the 12.5 percent duration elevation resulted in the inclusion of more than 109,000 acres in base wetland extent that may or may not be wetlands. This decision also increased the overall estimated impacts to wetlands (those that would no longer meet the Federal definition of wetlands) from 4,315 to 26,300 acres (2007 FSEIS Appendix 10 – Wetlands).

Yazoo Backwater Area Water Levels: 2008-2019

According to daily historic data at the Steele Bayou Control Structure (landside) for the years 2008-2019, water levels remained above the 12.5 percent wetland duration elevation of 84 feet, NGVD, for an average of 62 days of the growing season (March 1 – November 27). It remained above the 5 percent duration elevation of 88.6 feet, NGVD, for an average of 38 days. The average annual high water stage was approximately 91 feet, NGVD. This information is significant for a number of reasons.

First, as noted previously the Federal definition states that all lands below the 12.5 percent duration elevation are wetlands, and there are approximately 80,000 acres below this elevation according to 2007 Corps estimates. The definition also states that lands between the 12.5 and 5 percent (84 to 88.6 feet) duration elevation may be wetlands, which includes approximately 109,000 acres, for a total of 189,000 acres of wetlands below the 5 percent duration elevation. Thus, water levels in the Yazoo Backwater Area from 2008 to 2019 far exceeded the minimum hydrology requirements for federal wetlands, given that at least 80,000 acres of wetlands remained inundated continuously for an average of 62 days, and more than 189,000 acres remained inundated for an average of 38 days.

Second, if the proposed pump station would have been in operation during those years, it would have had no impact on the average 62-day period of inundation on the 80,000 acres of wetlands below 84 feet, NVGD, because the recommended plan called

for a pump-on-pump-off elevation of 87 feet, NVGD. Third, it would have had minimal impact on the 109,000 acres in the hydrology zone of possible wetlands, again because the recommended plan called for a pump-off elevation on 87 feet, NGVD, and because the changes to flood extent and duration as result of the pump station would be slow and gradual. According to the Engineering Summary (FSEIS Appendix 6 – Engineering Summary), it would take just over six days to lower the water surface elevation 1 foot at the Steele Bayou Control Structure. It would take more than 25 days to reduce the water surface elevation from 91 to 87 feet, NGVD, which is the elevation the pump station would no longer operate, thus allowing roughly 216,000 acres to remain inundated.

Additional Considerations Moving Forward

The proposed pump project is not a stand-alone project. It is the last remaining unconstructed feature of a much larger authorized flood control effort consisting of backwater levees, drainage channels, floodgates, and pumps. All of these features were designed to work together as a system. All of these features have been completed except for the Yazoo Backwater Area pumps. As we have seen this year and in many years prior, the system will not function properly until all features of the system are in place.

An array of nonstructural, structural, and combination alternatives have been considered since 1982, and pumping is the only practicable means of removing water trapped inside the existing system of levees and floodgates. I am not in a position to say what specific path the Corps and EPA should take toward providing improved flood protection for the region, but I am confident a balanced solution of flood protection and environmental protection can be met. Since 2008, thousands of acres of land in the Yazoo Backwater Area have been enrolled in Federal conservation programs, and landowners have even expressed willingness to inundate portions of their land during certain times of year to address wetlands and migratory bird habitat concerns.

Moving forward, it is important that the Corps provide EPA with appropriate new data and information pertaining to the Yazoo Backwater Area, so that both agencies can articulate a satisfactory explanation for what has changed since 2008, and why congressionally-authorized flood improvements must be implemented. In reviewing new documentation, it is equally important that EPA grant reasonable deference to the Corps, as the lead Federal agency, and complete any necessary reviews as swiftly as possible.

Thank you for your attention to this important matter, and for your continued efforts to address flooding in the region.

Sincerely,

Cindy Hyde-Smith

CINDY HYDE-SMITH

From: Jenkins, Brandi
To: Hudson, Wanda
Subject: Senator Hyde-Smith Letter
Date: Tuesday, January 14, 2020 2:37:17 PM

Wanda – On Friday, January 10, 2020, Blake spoke with Senator Hyde-Smith's Deputy Chief of Staff, Daniel Ulmer. He provided him with the status of our discussions with the Corps. Mr. Ulmer was satisfied with the verbal response to the Senator's letter.

Brandi